

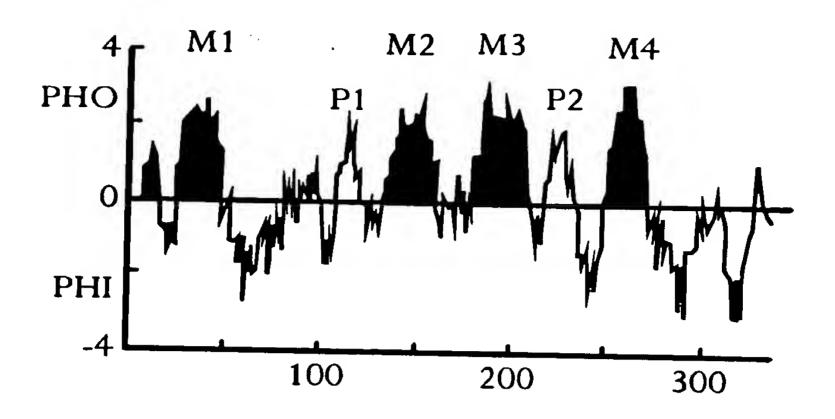
FIG. 1A

	,										g	ggca	ggaa	gacg	gcgc	tgcc	cgga	ggagc	
					_													gccag agaag	
																			. 60
	CTG	_	TCC	CTG	_	_	_	_				CTG				CAC	_	TCG	, 10-
M	Ъ	Q	. ડ	p	A	G	S	S	С	V	R	Ţ	٧	E	R	н	R	7	
GCC	TGG	TGC	TTC	GGC	TTC	CTG	GTG	CTG		TAC	TTG	CTC	TAC	CTG	GTC	TTC	GGC	GCA	1
<u>A</u>	W	С	F	G	F	L	V	L	G	Y	_ <u>L</u>	L	<u>Y</u>	L	<u>V</u>	F	G	<u>A</u>	
GTG	GTC	TTC	TCC	TCG	GTG	GAG	CTG	CCC	TAT	GAG	GAC	CTG	CTG	CGC	CAG	GAG	CTG	CGC	1
V	V	F	S	S	V	E	L	P	Y	E	D	L	L	R	Q	E	L	R	
AAG	CTG	AAG	CGA	CGC	TTC	TTG	GAG	GAG	CAC	GAG	TGC	CTG	TCT	GAG	CAG	CAG	CTG	GAG	2
K	L	K	R	R	F	L	E	E	H	E	С	L	S	E	Q	Q	L	E	
CAG	TTC	CTG	GGC	CGG	GTG	CTG	GAG	GCC	AGC	AAC	TAC	GGC	GTG	TCG	GTG	CTC	AGC	AAC	2
Q	F	L	G	R	V	L	E	A	S	N	Y	G	V	S	V	L	S	N	
GCC	TCG	GGC	AAC	TGG	AAC	TGG	GAC	TTC	ACC	TCC	GCG	CTC	TTC	TTC	GCC	AGC	ACC	GTG	3
A	S	G	N	W	N	W	D	F	T	S	A	L	F	F	A	S	T	<u>V</u>	1
CTC	TCC	ACC	ACA	GGT	TAT	GGC	CAC	ACC	GTG	CCC	TTG	TCA	GAT	GGA	GGT	AAG	GCC	TTC	3
L	S	T	T	G	Y	G	Н	T	V	P	L	S	D	G	G	K	A	F	1
TGC	ATC	ATC	TAC	TCC	GTC	ATT	GGC	ATT	CCC	TTC	ACC	CTC	CTG	TTC	CTG	ACG	GCT	GTG	4
С	I	I	Y	S	V	I	G	I	P	F	T	L	L	F	L	T	A	V	1
GTC	CAG	CGC	ATC	ACC	GTG	CAC	GTC	ACC	CGC	AGG	CCG	GTC	СТС	TAC	ттс	CAC	ATC	CGC	5
V	Q	R	I	T	V	Н	V	T		R	P	V	L	Y	F	Н	I	R	1
TGG	GGC	TTC	TCC	AAG	CAG	GTG	GTG	GCC	ATC	GTC	CAT	GCC	GTG	CTC	CTT	GGG	TTT	GTC	5
W	G	F	S	K	Q	V	V	A	I	V	Н	A	V	L	<u>L</u>	G	F	V	1
ACT	GTG	TCC	TGC	TTC	TTC	TTC	ATC	CCG	GCC	GCT	GTC	TTC	TCA	GTC	CTG	GAG	GAT	GAC	6
T	V	S	C	F	F	F				A		F	S		L	E	D	D	2

FIG. 1B-1

ሞርር	770	mma	OMO	011	maa														S. 42. 25 . 25.
166	AAC	TTC	CTG	GAA	TCC	TTT	TAT	TTT	TGT	TTT	ATT	TCC	CTG	AGC	ACC	ATT	GGC	CTG	684
W	N	F	L	E	<u> </u>	F	Y	F	C	F	I	S	L	S	T	I	G	L	228
GGG	GAT	TAT	GTG	CCT	GGG	GAA	GGC	TAC	AAT	CAA	AAA	TTC	AGA	GAG	CTC	ТАТ	AAG	ATT	741
G	D	Y	V	P	G	E	G	Y	N	Q			R	E	L	Y	K	T	247
			_																211
GGG	ATC	ACG	TGT	TAC	CTG	CTA	CTT	GGC	CTT	ATT	GCC	ATG	TTG	GTA	GTT	CTG	GAA	ACC	798
G	I	T	C	Y	L	L	L	G	L	I	A	М	Ī,	V	V	T.	F	η	266
									···										200
TTC	TGT	GAA	CTC	CAT	GAG	CTG	AAA	AAA	TTC	AGA	AAA	ATG	TTC	TAT	GTG	AAG	AAG	CAC	855
F	C	E	L	H	E	L	K	K	F	R	K	M	F	Y	V	K	K	D	285
													•	•	•	11	I	U	203
AAG	GAC	GAG	GAT	CAG	GTG	CAC	ATC	ATA	GAG	CAT	GAC	CAA	CTG	ፐርር	ጥጥር	ሞሮሮ	ጥርር	እጥ ር	912
K	D	E	D	Q	V	H	Ι	Ι	E	Н	D	0	L	S	F	S	S	T	
				_					_			¥	ם	J	Ľ	J	J	1	304
ACA	GAC	CAG	GCA	GCT	GGC	ATG	AAA (GAG	GAC	CAG	AAG	CAA	Ταα	CAC I	ርር ሞ	ው	ርጥር	CCC	969
T	D	Q	A	A	G	M	K	E	D	0	K	0	N	E	P	L 111	77	אט	
								_		¥	• • • • • • • • • • • • • • • • • • • •	¥	14	ь	ľ	r	V	A	323
ACC (CAG '	TCA '	TCT	GCC	TGC (GTG (GAT (GC (CCT	GCA	AAC	ር ልጥ	ፐርኔ	aca	t a a a	3 + ++.	atta	aatt	1030
T	Q	S	S	A	C	V	D	G	P	A	N	H	*	gcg	Layy	alli	gity	catt	1030
atgct	taga	acac	cagg	atca	aaati	rcaae	-	•	•		••			- 0 2 0 7	-				337
ttate	rtcad	cttt	aaga	aata	ret ac	rtati	taca	atat	ctt	ayta	2222	call		cay	acy	cada	agcg	aaaa	1106
aagct	ata	accc	cage	aggai	tatet	raata	atata	iacy	aaat/	1202	tata	acaal	Cadad	idad	jacac	catgo	yaac	aaag	1182
tetee	racct	taca	atano	ישפפי	araat	acti	.asso	ragge	adu	yaya otasi	tyte	cacci	Ldddd	ILLC	itato	jtgad	caaa	atta	1258
tctcg	cttt	.uuuc	1111	guyyi Taatt	taaa	-acc	yaay	cayı	tacy	reger	LyLy	gita	gaago	agat	ttta	itaci	ittt	aact	1334
ggaaa aaago	atac	ranat	ratat	,cacı	taga	togo	ilay	ctya	regge	ildaa	itago	caaaa	ittta	tatt	taga	agca	laaaa	aaaa	1410
aaago	tota	jayat Lanto	.9090		1L000	tayo	ıılla	Lyty	Lact	.ggt t	tgca	itgta	iccca	ccca	aaat	gatt	atti	tttg	1486
gagaa tatat	+ ~ + ~	taguu	aadu	· ccd(ldll	lata	acgc	atag	gtaa	iccat	taac	etatg	rtaca	tata	aagt	ataa	atat	gtt	1562
tatat	rrr	Laca	ildig	yttt	aggt	.cacc	agat	ccta	gtgt	agtt	ctga	aact	aaga	ctat	agat	attt	tgtt	tct	1638
tttga	LLEC	CCCC	tata	ctaa	agaa	tcca	gagt	tgct	acaa	taaa	iataa	igggg	gaata	ataa	aaaa	aaaa	aaaa	ıa	1712

FIG. 1B-2



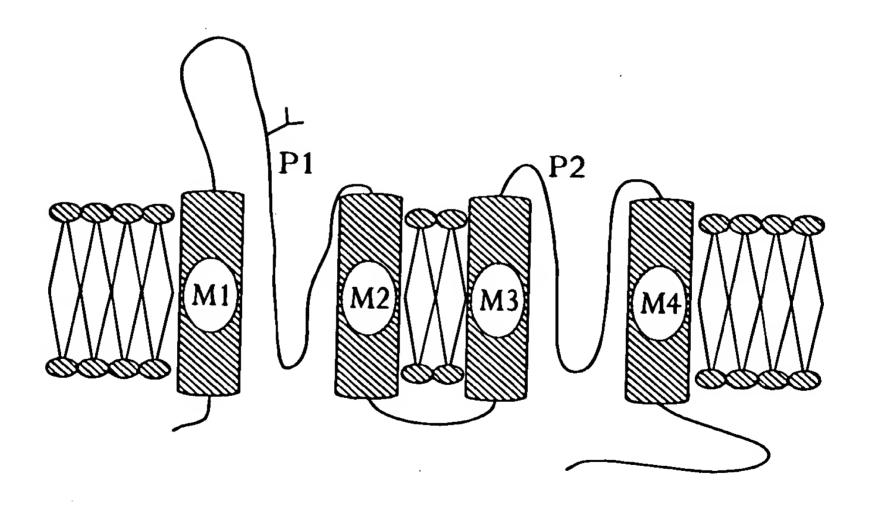


FIG. 1C

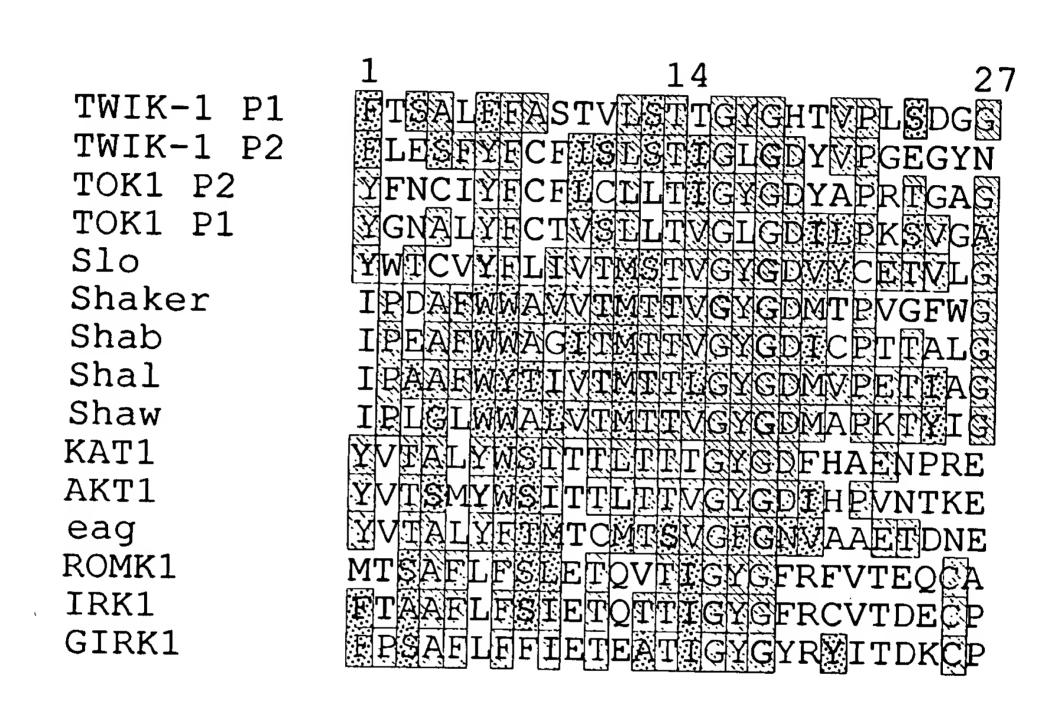


FIG. 2A

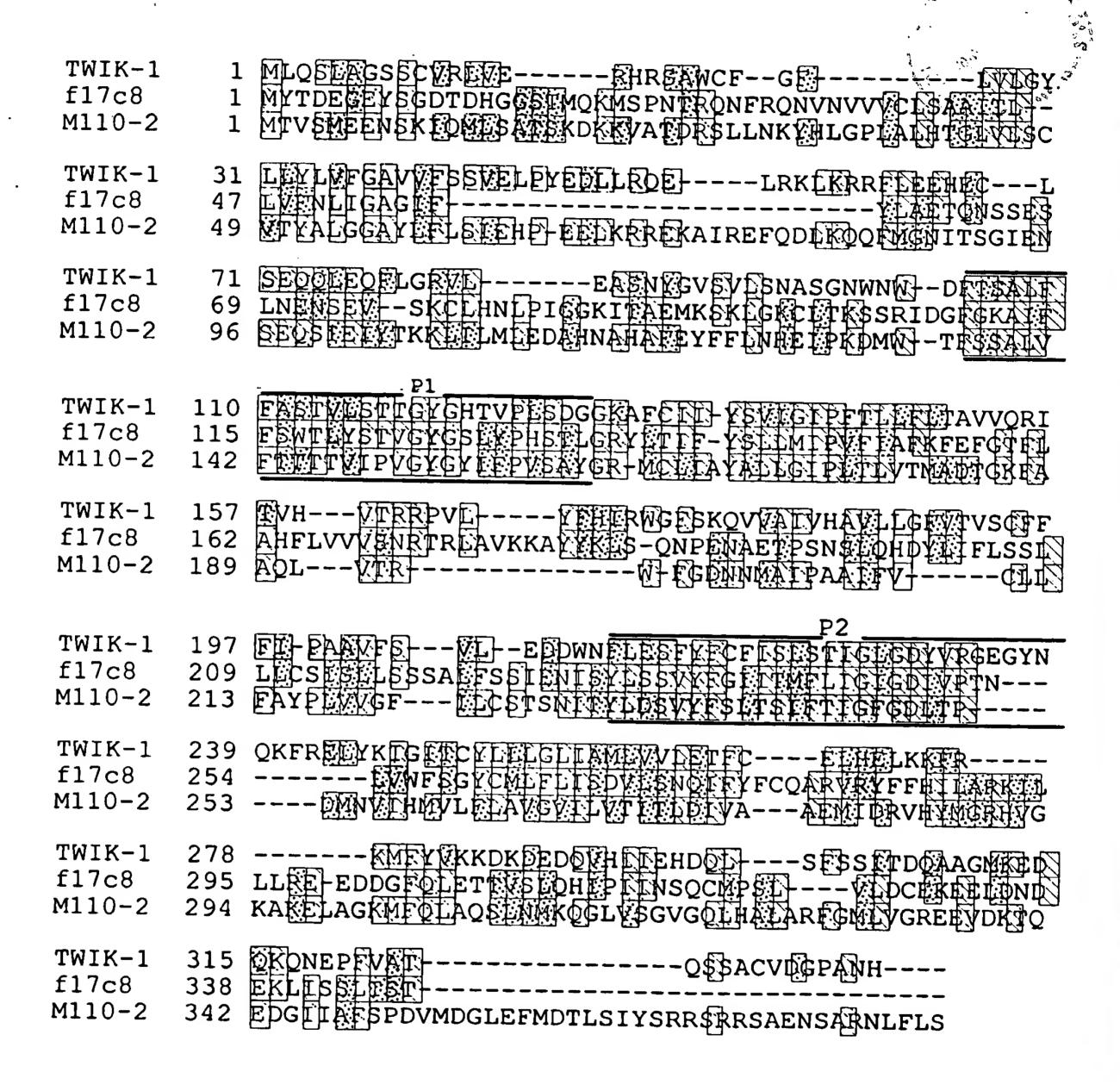
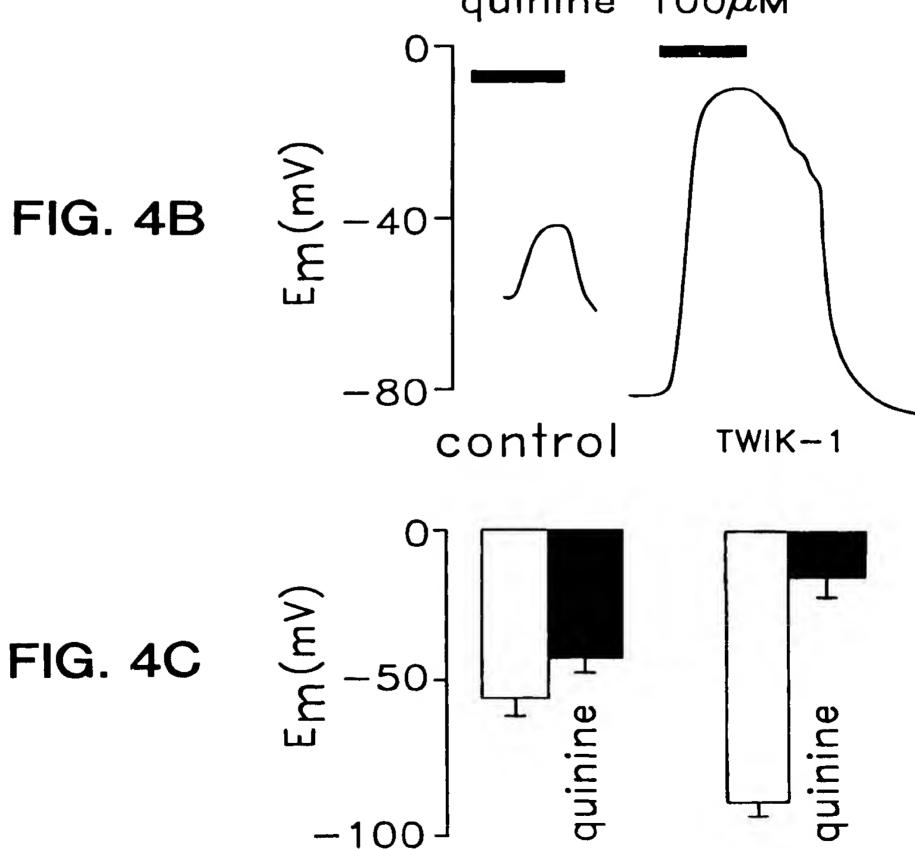


FIG. 2B

U.S. Serial No. 09/939,483

Docket No.: 1201-CIP-DIV-2-00 FAMILY OF MAMMALIAN....DRUGS

U.S. Serial No. 09/939,483 Docket No.: 1201-CIP-DIV-2-00 FAMILY OF MAMMALIAN....DRUGS Fabrice Duprat et al. [TWIK-1 cRNA] 11 µg/µ1 I(nA) 500 250 -50 100 Em (mV) quinine $100\mu\mathrm{M}$ 0--80⁻



-100-

FIG. 4A

U.S. Serial No. 09/939,483 Docket No.: 1201-CIP-DIV-2-00 FAMILY OF MAMMALIAN....DRUGS Fabrice Duprat et al. 3mM Mg^{2+} Mg²⁺ 0mMI(pA) 20 ms +40 HANNINAMAN 80 V(mV) -80 FIG. 5A FIG. 5B 3mM Mg^{2+} 0mM Mg $^{2+}$ **EVENTS EVENTS** 300 +80 mV +80 mV τ =1.9ms τ =1.4ms 200 $\gamma = 19pS$ $\gamma = 35pS$ 100 OPEN TIME (ms) OPEN TIME (ms) m EVENTS **EVENTS** 600 -80 mV -80 mV τ =0.3ms τ =0.3ms $\gamma = 34pS$ $\gamma = 34pS$ 300 OPEN TIME (ms) OPEN TIME (ms)

FIG. 5D

300

200

100

500

250

FIG. 5C

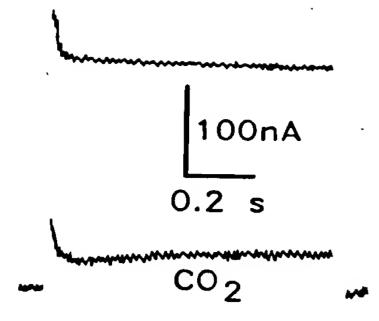


FIG. 6A

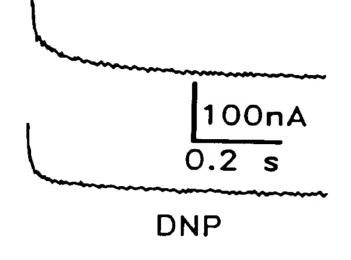


FIG. 6C

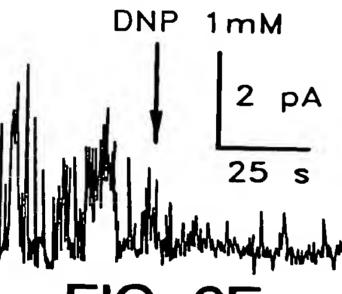


FIG. 6E

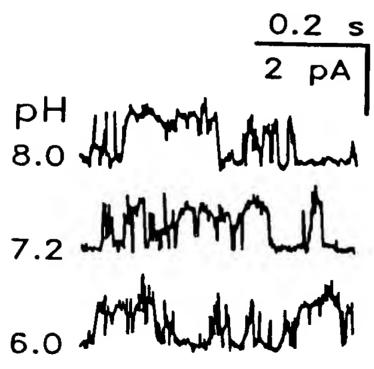


FIG. 6G

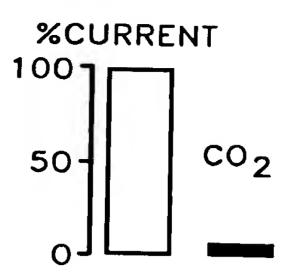


FIG. 6B

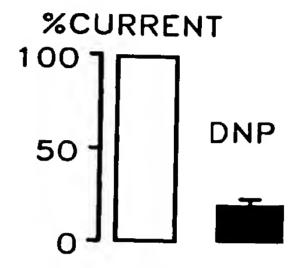


FIG. 6D

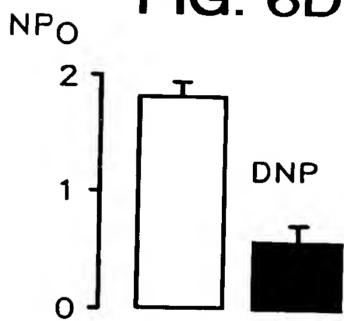


FIG. 6F

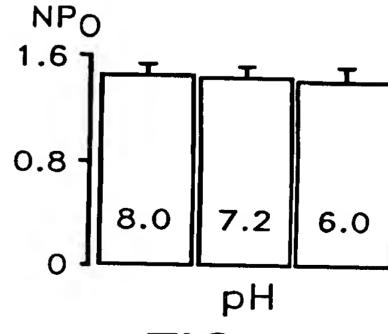


FIG. 6H

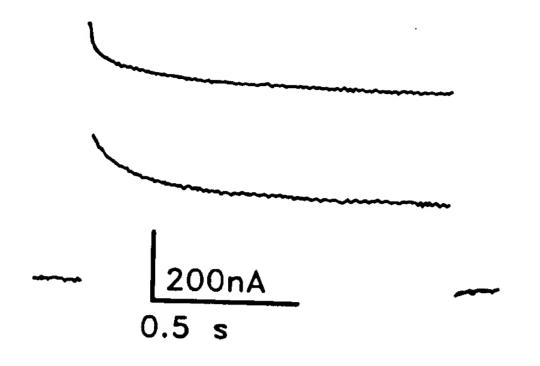


FIG. 7A

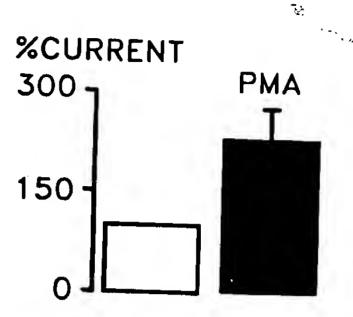


FIG. 7B

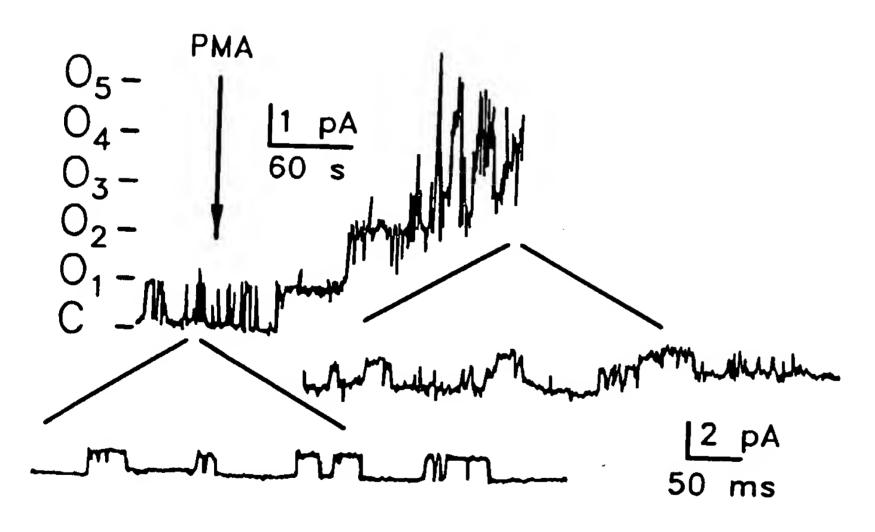


FIG. 7C

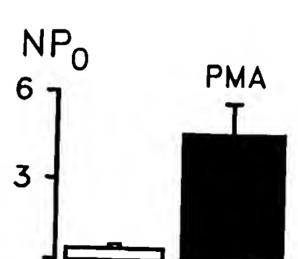


FIG. 7D

OGD CARCARCARCARCARCARCARCARCARCARCARCARCARC														-77					
ATC AAC CCC CAC AAC CTC CCC ACC ACC CTC															-1				
ATG	AAG				GTG			_	GCG	CTC	ATC	GTG	TGC	ACC	TTC	ACC	TAC	CTG	57
M	K	R	Q E	N N	V V	R	T	L	A	L	I	V	C	T	F	T	Y	. .	19
			<u>E</u>	14	V	R	T	L	A	L	I	V	С	T	F	T	Y	L `	18 .
CTG	GTG	GGC	GCC	GCG	GTC	TTC	GAC	GCG	CTG	GAG	TCG	GAG	CCC	GAG	CTG	ATC	GAG	CGG	114
L	V	G	A	A	V	F	D	A	L	E	S	E	P	E	L	I	E	R	38
L	V	G	A	A	V	F	D	A	L	E	S	E	P	E	M	I	E	R	
CAG	CGG	CTG	GAG	CTG	CGG	CAG	CAG	GAG	CTG	CGG	GCG	000	m> 0						
Q	R	L	E	L	R	Q	Q	E	L	R	A	CGC R	Y	AAC N	CTC		CAG	GGC	171
Q	R	L	E	L	R	Q	L	E	L	R	A	R	Y	N	L L	s s	Q E	G	57
													•	*	-	•	<u> </u>	•	
GGC	TAC	GAG	GAG	CTG	GAG	CGC	GTC	GTG	CTG	CGC	CTC	AAG	CCG	CAC	AAG	GCC	GGC	GTG	228
G	Y Y	E	E	L	Ε	R	V	V	L	R	L	K	₽	H	K	A	G	V	76
G	1	£	E	L	E	R	V	V	L	R	L	K	P	H	K	A	G	V	
CAG	TGG	CGC	TTC	GCC	GGC	TCC	TTC	TAC	TTC	GCC	ATC	ACC	GTC	ATC	ACC	ACC	ATC	GGC	285
Q	W	R	F	A	G	S	F	Y	F	A	I	T	V	I	T	T	T	G	95
Q	W	R	F	A	G	S	F	Y	F	A	I	T	V	I	T	T	Ī	G	,,
ma.c	000	010	000																
TAC Y	GGG	H	GCG A	GCA A		AGC						GTG	TTC		ATG	TTC	TAC	GCG	342
Y	G	Н	Α	A	P P	S S	T T	D D	G	G	K	V	F	C	M	F	Y	A	114
		••	•	^	•	3	•	D	G	G	K	V	F	C	M	F	Y	A	
CTG	CTG	GGC	ATC	CCG	CTC	ACG	CTC	GTC	ATG	TTC	CAG	AGC	CTG	GGC	GAG	CGC	ATC	AAC	399
L	L	G	I	P	L	T	L	V	M	F	Q	S	L	G	E	R	I	N	133
L	L	G	I	P	L	T	L	I	M	F	Q	S	L	G	E	R	I	N	
ACC	ጥጥና	GTG	AGG	TAC	CTC	CTG	CNC	000	000										
T	L	V	R	Y	L	L	H	R	A	AAG K	AAG K	GGG						GCC	456
T	E	v	R	Y	L	L	H	R	Α	K	R	G G	L L	G	M M	R	R	A	152
	_				_			•	••	• • •	Δ	•	L	G	M	R	H	A	
_	GTG	TCC	ATG	GCC	AAC	ATG	GTG	CTC	ATC	GGC	TTC	TTC	TCG	TGC	ATC	AGC	ACG	CTG	513
D	٧	S	M	A	N	M	V	L	I	G	F	F	S	C	I	S	T	L	171
E	V	S	M	A	N	M	V	L	I	G	F	V	S	С	I	S	T	L	•
TGC	ATC	GGC	GCC	GCC	GCC	TTC	TCC	CAC	TAC	GAG	CAC	TGG	ACC	ጥጥረ	ጥጥር	CAG	CCC	ma c	570
С	I	G	A	A	A	F	s	Н	Y	E	Н	W	T	F	F	Q	A	TAC Y	570 190
С	I	G	A	A	A	F	S	Y	Y	E	B	W	T	F	F	Q	A	Y	100
TAC	ጥልሮ	TCC	ТТ	3 mc	200	O.B.O.													
Y	Y	C	TTC	ATC	T	L			ATC			GGC				_	CTG	CAG	627
Y	Y	C	F	T	T	<u>.</u>	T	T	±	G	F	G	D	Y	V	A	L	Q	209
•	•	·	•	•	•		•	1	1	G	F	G	D	Y	V	A	L	Q	
AAG	GAC	CAG	GCC	CTG	CAG	ACG	CAG	CCG	CAG	TAC	GTG	GCC	TTC	AGC	TTC	GTC	TAC	ATC	684
ĸ	D	Q	A	L	Q	T	Q	P	Q	Y	v	A	F	S	F	v	Y	I	228
K	D	Q	A	L	Q	T	Q	P	Q	Y	V	A	F	S	F	V	Y	I	
CTT	ACG	GGC	CTC	ACG	GTC	ATC	GGC	GCC	ጥጥር	ርጥር	מממ	CTC	CmC	CEC	OB0	000	mme		5 4 4
L	T	G	L	T	v	I	G	A	F	L	N	L	V	V V	CTG L	CGC	TTC	ATG M	741
L	T	G	L	T	V	I	G	A	F	L	N	L	v	V	L	R	F	M M	247
													-	-	_		-	••	

FIG. 8A

ACC	ATG	AAC	GCC	GAG	GAC	GAG	AAG	CGC	GAC	GCC	GAG	CAC	CGC	GCG	CTG	, CTC	ÁCG	CGC	798
T T	M M	14	A	E	D	E	K	R	D	A	E	н	R	A	L	L	T	R	266
•	M	N	A	E	D	E	K	R	D	A	E	H	R	A	L	L	T	H	
AAC	GGG	CAG	GCG	GGC	GGC	GGC	GGA	GGG	ርርጥ	GGC) CC	CCC	030) OF			* * * * * * *	* (at .
N	G	Q	A	G	G	G	G	G	G	G	S	A	H	ACT	ACG		ACC		855
N	G	Q	A	Y	G	L	G	G	L	s	2	L	s	Ğ	S	D t.	T G	A D	285
													_	_	-	_	=	₽	
TCA	TCC	ACG	GCG	GCA	GCG	GGC	CCC	000	000	550									
S	S	T	Α	A	A	GGC G	G	GGC	GGC	F								CTG	912
VRP	RDPV	<u>T</u> C	AA	A	A	_		-	-	F	R R	N N	V	Y	A	E	V 	L	304
	CONTRACTOR OF R N V Y A E V L													L					
		_				TCG	TGC	CTG	TGG	TAC	AAG	AGC	CGC	GAG	AAG	CTG	CAG	TAC	969
Н Н	F F	Q	S	M	С	S	C	L	W	Y	K	S	R	E	K	L	Q	Y	323
*1	· ·	Q	S	M	С	S	С	L	W	Y	K	S	R	E	K	L	Q	Y	
TCC	ATC	CCC	ATG	ATC	ልጥሮ	CCG	CGG	CAC	CMC	m 00								•	
s	I	P	M	I	I	P	R	D	L	s	_							CAG	1026
S	I	P	M	I	I	P	R	D	L	S	T T	S S	D D	T T	C	V	Ε	Q	342
												_	_	•	С	V	E	H	
AGC	CAC	TCG	TCG	CCG	GGA	GGG	GGC	GGC	CGC	TAC	AGC	GAC	ACG	ccc	TCG	CGA	CGC	ፐርር	1083
_	••	•	5	•	G	G	G	G	R	Y	S	D		P			R	C	361
S	н	S	·S	P	G	G	G	G	R	Y	S	D	T	P	S	H	P	Ċ	301
CTG	TGC	AGC	GGG	GCG	CCA	CGC	TCC	CCC	1.000				_		•				
L	C	s	G	,A	P	R	s	GCC A	ATC I	AGC		GTG	TCC	ACG	GGT	CTG	CAC	AGC	1140
L	C	S	G	T	Ω	R	S	A	I	S S	S S	V V	S	T	G	L	H	S	380
_									•	3	3	V	S	T	G	L	H	S	
				CGC	GGC	CTC	ATG	AAG	CGC	AGG	AGC	TCC	GTG	TGA	cto	icccc	raaac	gacc	1200
L L	S	T	F	R	G	L	M	K	R	R	S	S	V	•			.9~92	Jucc	395
U	A		F	R	G	L	M	K	R	R	S	S	V						
tgga	gcac	ctgg	gaac	acad	iacac	iggga	cccc	tact	~~~	~~~									
ggac	cccg	caca	acat	ccct	cacc	acto	tccc	ccao	CACC	CCCA	tete	gact	gccc	ctgo	tgcc	ttct	gccc	agtg	1276 1352
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							4444	ucca	uuuL	UECE	arde	CCAA	7 t 7 2	~~~				•	<u> </u>
				3-	2			しししし	LCUL	arra	CCCC	CCAL	aaat	++~~	3756	* * ~ ~			
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•		00-3		2~25	Crac	9900	Lytt	ayıc	COCA	gaat	aatc	CCAC	taga	aatt		a+			1004
ctca	ccat	aatt	gctg	ataa	ttac	CCAC	tett	aaat	ttat	GUAG	tast	CCCA	gaat 200-	ctgg 	aaca	gaag 	actt	caga	1960 2036
	-	_					CCGC	ccau	utca	CCAC	aaca	$\alpha \alpha a \alpha$	++~+	~ · ~ ·				_ •	
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ctcc	3 0	-227	cyac	aggg	caag	accc'	tgtc	ccaa	8888	aaaa	8888	a						-	2465

FIG. 8B

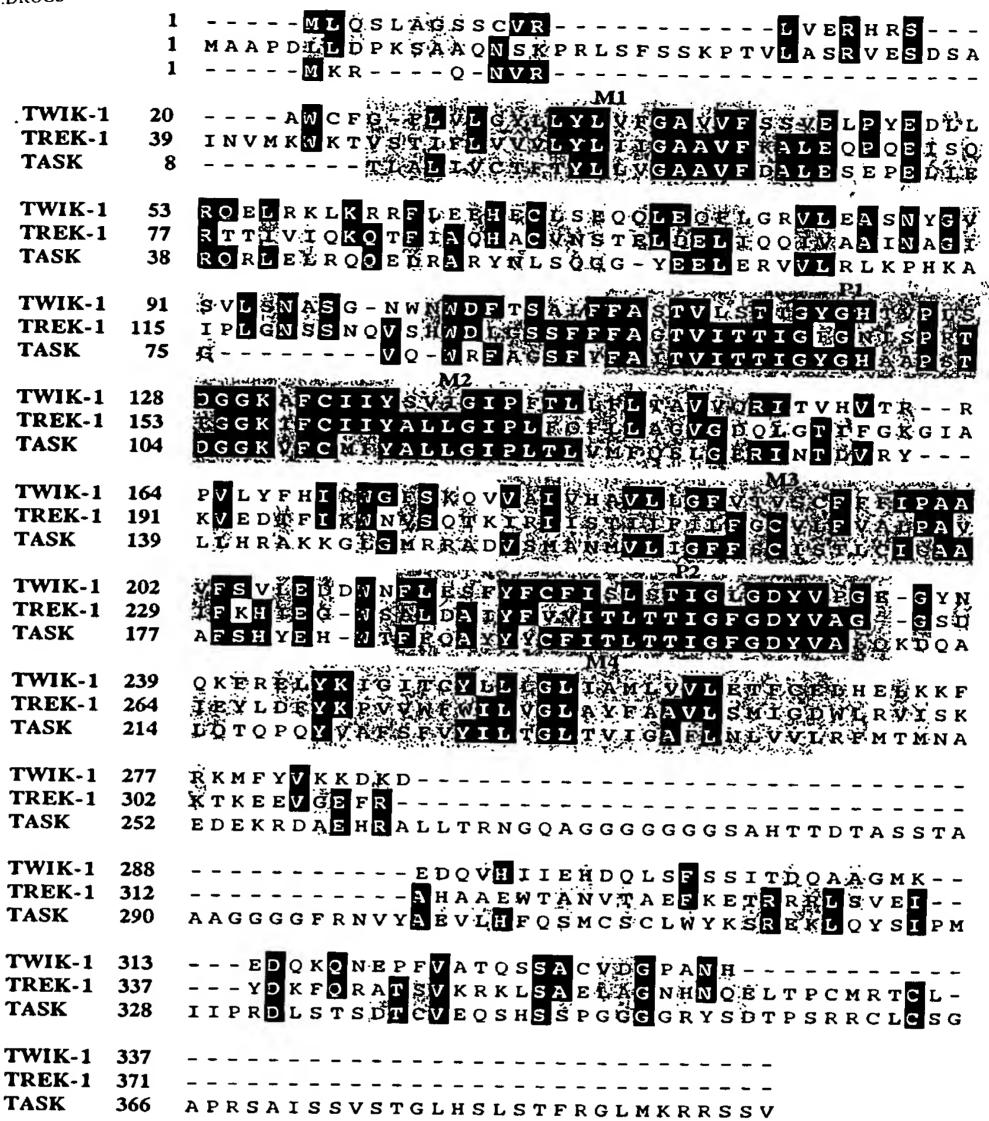
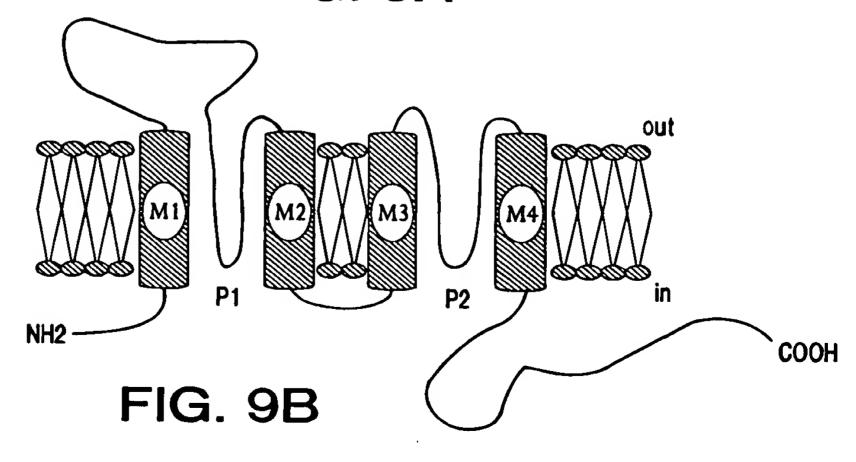


FIG. 9A





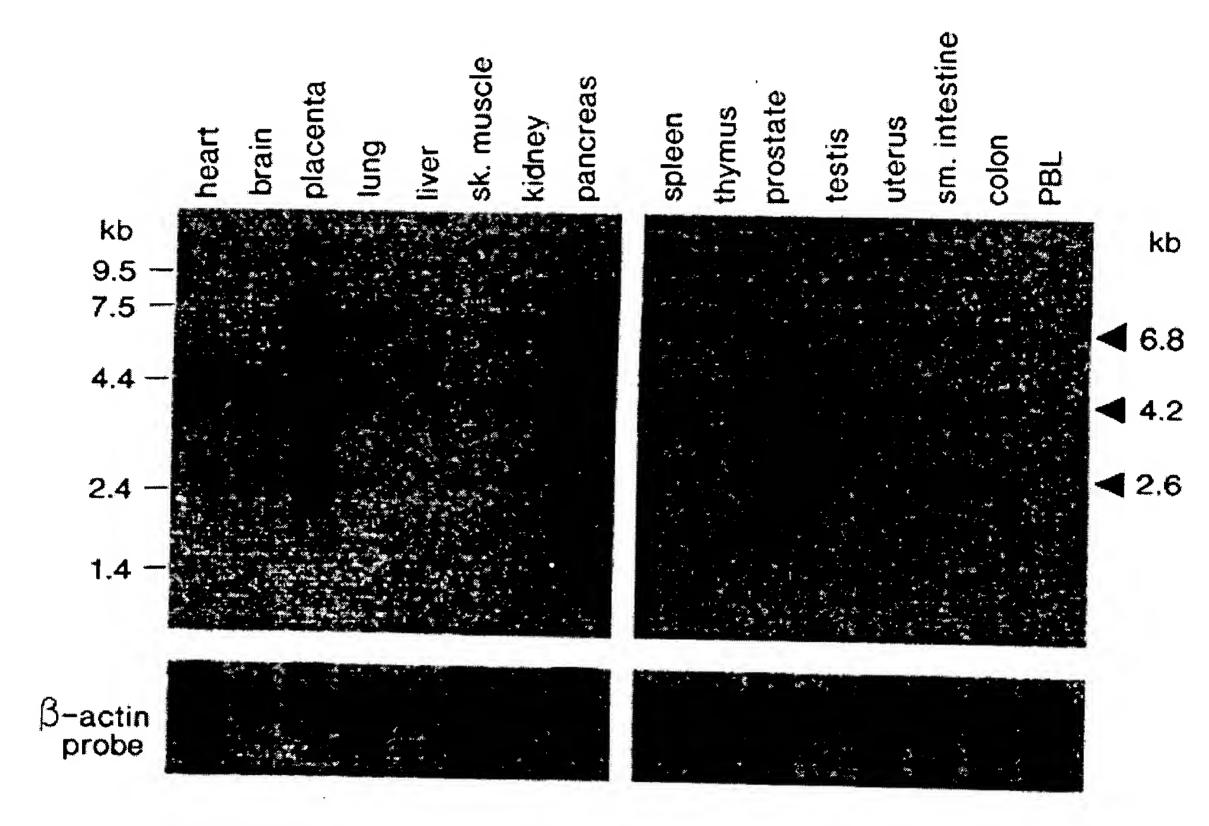


FIG. 10

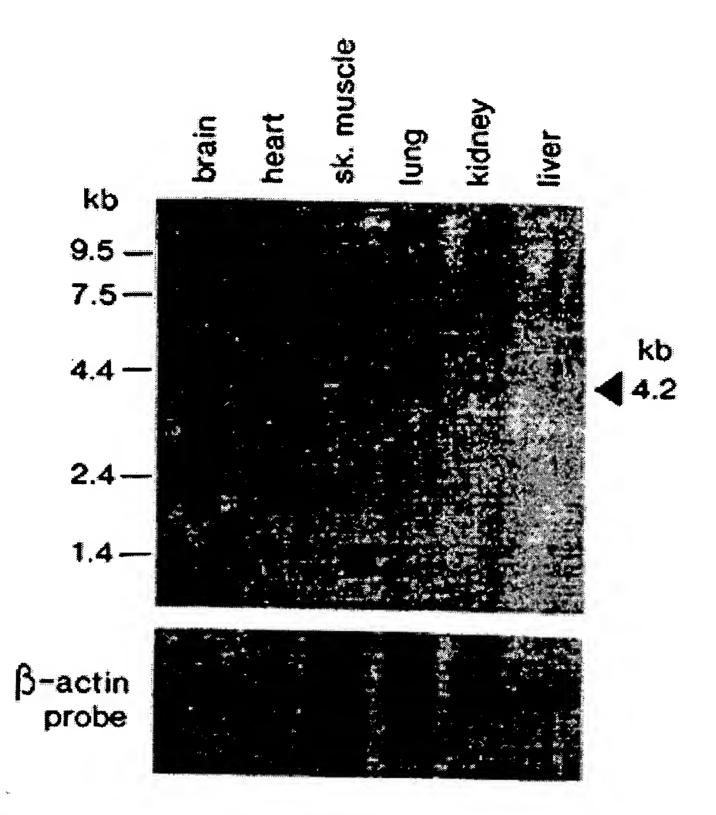


FIG. 11A

FIG. 11B

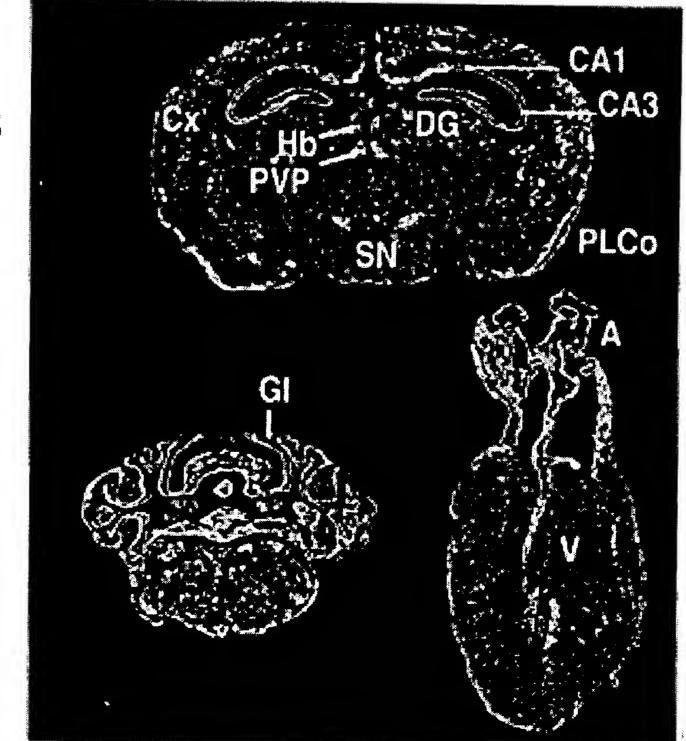


FIG. 11D

FIG. 11C

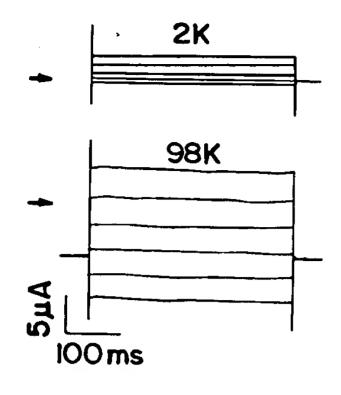
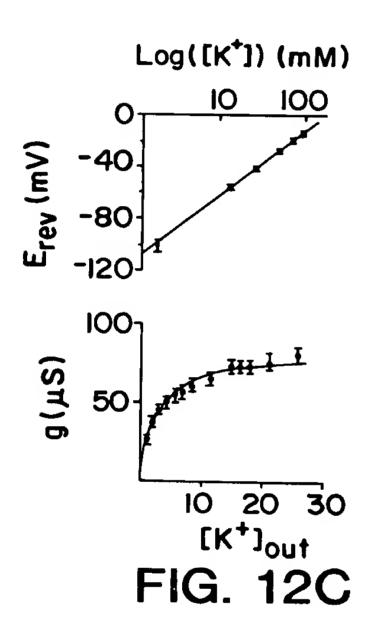


FIG. 12A



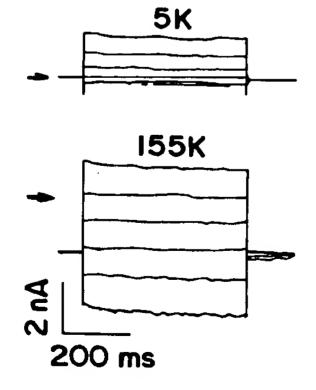


FIG. 12E

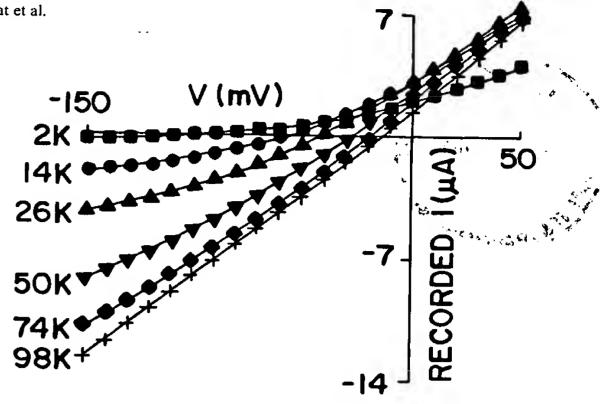


FIG. 12B

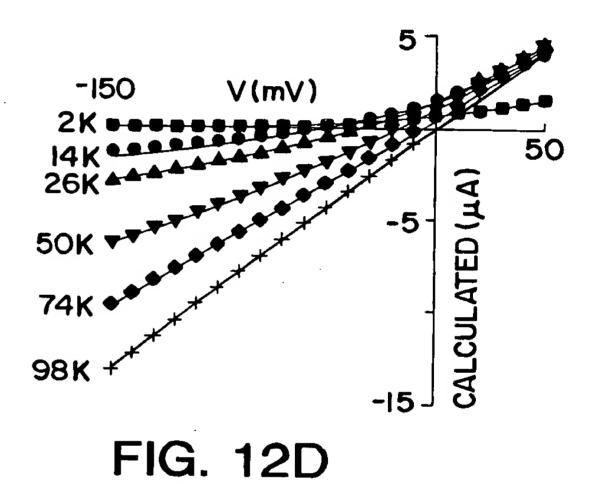


FIG. 12F

55K

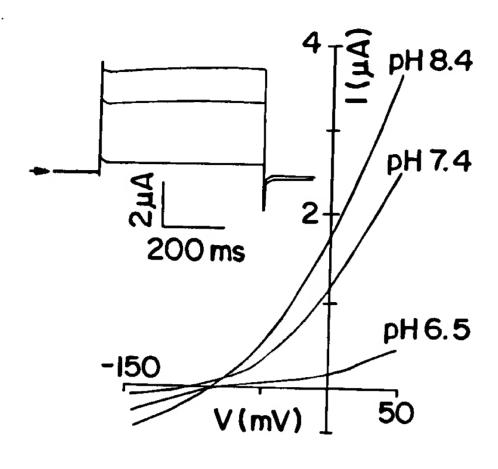


FIG. 13A

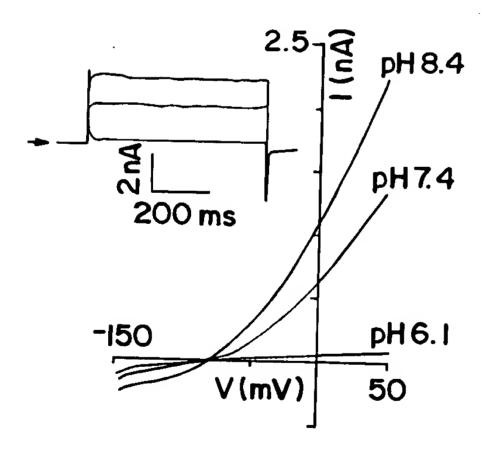


FIG. 13C

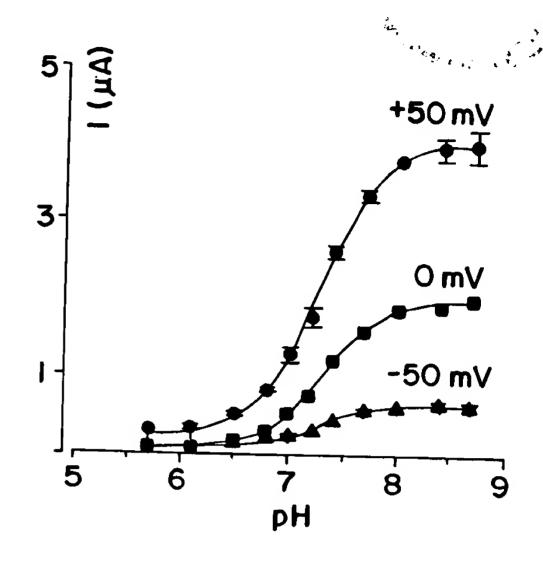


FIG. 13B

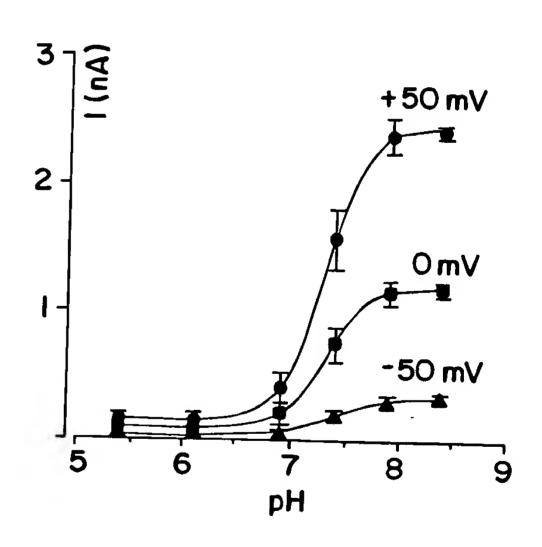


FIG. 13D